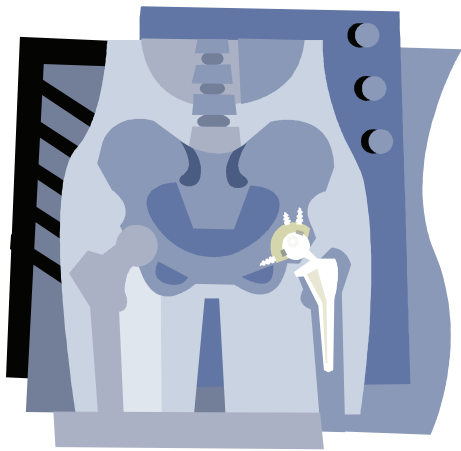


Novel TiB Surface Hardening

U N I V E R S I T Y O F U T A H

CENTER

This new Center is commercializing a novel method for hardening the surface of components fabricated from Titanium. Originally developed with government funding for use in creating lightweight Titanium armor, their



approach for the first time makes this strong metal suitable for use in applications such as hip replacements, bearings and cutting tools where superior hardness coupled with wear resistance create a superior product.

TECHNOLOGY

The Center technology involves the incorporation of titanium monoboride (TiB) crystals into the surface of titanium components, creating a stable, spall-resistant surface layer conferring the advantages of hardness and wear resistance coupled with electrical and thermal conductivity.

ACCOMPLISHMENTS

The Center has applied for international patents, and a license has already been signed with Ortho Development Corporation, a Utah company, for the development and FDA validation of orthopedic implants using the TiB coating – offering for the first time the potential for implants that last a lifetime, even with young recipients.

THINK TANK

What if there was...

A method for adding a tightly bonded coating onto lightweight titanium parts to create superior hardness and wear resistance?



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